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Secret “Inert” Ingredients Are Not Innocuous

I always thought that the “inert” in inert ingredients on a pesticide label specifically meant inert to plants, without reference to humans. Some googling pulled up a definition in federal pesticide law defining inerts as “an ingredient which is not active.” Can you provide more info on what these chemicals are?

Bruce, ME

Your research pulled up the correct definition, but the reality is that in terms of human health, inerts (sometimes called “other” ingredients) can be just as toxic as the “active” ingredient in a pesticide product, both to plants and animals. These chemicals can be biologically and chemically active, but are not added to the product formulation for the purpose of attacking the target pest (e.g., insect, weed, or fungus). Inerts are generally used to enhance the active ingredient, and are employed as antifoaming agents, surfactants, propellants, or a number of other uses. The U.S. Environmental Protection Agency (EPA) does not require manufacturers to disclose the inerts used in any particular pesticide product. They are considered confidential business information (CBI).

EPA does have a database that lists all the possible chemicals used as inert ingredients. However, the range of potential materials makes this tool useless when looking at the pesticide products sold on store shelves, which can contain up to 99%+ inert material. An investigation by the Attorney General of New York, *The Secret Ingredients in Pesticides: Reducing Risk* (Abrams, 1991) found that inert ingredients typically make up 95% of product ingredients.

EPA allows hazardous chemicals like formaldehyde, quaternary ammonium compounds, and hydrochloric acid to be given the same “inert” designation on a pesticide label as materials like sunflower seeds, cocoa, and canola oil. As an average consumer, you can try contacting the manufacturer to find out what is in a pesticide product. Chances are, the chemical manufacturer will not share that information. Under federal law, medical professionals can get information on full pesticide formulations to treat patients, but are typically required to sign a confidentiality agreement with the product manufacturer.

Independent testing recently conducted by Public Employees for Environmental Responsibility (PEER) finds that the popular synthetic pyrethroid mosquito pesticide Anvil 10+10 contains significant levels of cancer causing PFAS (per- and polyfluoroalkyl substances), known as “forever chemicals” because of their persistence in the environment. PFAS is being found to contaminate groundwater, surface water, and drinking water throughout the U.S. EPA’s inerts database lists these substances, but the agency claims they are not being used in any formulation. This raises another serious problem of contaminants that are integral to pesticide products as a result of the manufacturing or packaging process, yet not disclosed on the product label.

EPA does not evaluate the toxicity of pesticide products in the form sold to consumers, or as full formulations, on store shelves. Under federal pesticide law, the agency is only required to test the active ingredient in the formulation.

Advocates note that EPA has the power to require public disclosure of inerts. Beginning in 2006, Beyond Pesticides joined with other groups to sue EPA on this issue. In 2009, the agency issued a promising response, indicating it would initiate rulemaking and seek public input on an inert disclosure law, but took no further action. Groups sued for undue delay, and EPA responded by backtracking and withdrawing from the rulemaking process on this. In 2016, the agency disclosed and delisted 72 inerts that it said were no longer in use. Despite the agency’s recent indication that PFAS is not currently in use as an inert, it has not been delisted.

While PFAS is the most recent example, there are numerous inerts of concern, identified after independent research. For example, one of the most hazardous ingredients found in the commonly used herbicide Roundup (active ingredient glyphosate) is polyethoxylated tallowamine (POEA)—a surfactant, which is classified as an inert and therefore not listed on the label alongside glyphosate. POEA can kill human cells, particularly embryonic, placental, and umbilical cord cells.

Rules mandating full disclosure of inert ingredients and other contaminants on all pesticide labels is needed. We hope that provides some clarity on the real dangers behind pesticide products’ “inert” ingredients that are usually anything but inert.

SHARE WITH US!

Beyond Pesticides welcomes your questions, comments, and concerns. Have something you’d like to share or ask us? We’d like to know! If we think something might be particularly useful for others, we will print your comments in this section. Mail will be edited for length and clarity, and we will not publish your contact information. There are many ways you can contact us: Send us an email at info@beyondpesticides.org, give us a call at 202-543-5450, or send questions and comments to: 701 E Street SE, Suite 200, Washington, DC 20003.

Pesticide Burdened Body

I'm dealing with health effects that I think are caused by pesticides—my neighbor sprays their lawn and my community is constantly “fogging” for mosquitoes with a toxic spray. I feel sick and want to test to see whether I have pesticides in my body. Can you provide contact information for a laboratory that does this or any resources I can use to find out more information?

Sarah, IL

It is important to note that Beyond Pesticides staff are not medical practitioners, and the best route to prevent and address illness is by working closely with a doctor and other medical professionals. At the request of members and supporters like yourself, we can provide a list of doctors and other resources that the organization maintains.

There is no doubt that pesticide-related illnesses are on the rise. Beyond Pesticides' *Pesticide-Induced Diseases Database* (bp-dc.org/PIDD) lists hundreds of scientific studies linking pesticide exposure to ailments that are all too common. Much of this is likely the result of the toxic soup of hazardous chemicals that are ubiquitous in modern life—from the food we eat, the air we breathe, and the water we drink.

Testing for pesticide contamination, or body burden testing, is best done in coordination with professionals who can help interpret your results. For the past 20 years, Commonweal in Bolinas, CA (commonweal.org) has run a biomonitoring resource center that measures the presence and concentration of chemical compounds in the human body. Commonweal also operates a health and healing retreat center.

For individuals with medical conditions believed to be related to environmental exposures, or for those experiencing greater sensitivity to chemicals in their environment, the Environmental Health Center-Dallas (ehcd.com) has a long history of diagnosing and treating patients. It lists itself as “A complete testing and treatment facility for environmentally-sensitive adults and children.” Claudia Miller, M.D. (new.drclaudiamiller.com) is one of the world's foremost experts on environmentally-induced diseases and has a range of resources on her website for those who may have Toxicant-Induced Loss of Tolerance (TILT, sometimes referred to as Multiple Chemical Sensitivity, or MCS). For those specifically concerned about glyphosate exposure, Health Research Institute (hrilabs.org) specializes in testing people, pets, water, and other sources for the toxic herbicide.

If looking for testing outside of these resources, it is important to coordinate with a doctor, use a state certified lab, and know the list of compounds being screened. Some labs will only test for the presence of persistent “legacy” pesticides like DDT/DDE, dieldrin, and other organochlorines. While a significant detect on these older chemicals can provide some insight, many of these compounds are ubiquitous in our environment—according to the Centers for Disease Control and Prevention, most of the U.S. public has some level of DDT/DDE in their bodies. There are thousands of pesticides

registered by EPA, in addition to inerts, contaminants, and other industrial chemical compounds. Even the most comprehensive test may not be able to detect every hazardous compound to which you may have been exposed.

We hope your health improves and that this information will help you along that path. For further resources, please email Beyond Pesticides at info@beyondpesticides.org.

FROM THE WEB

Beyond Pesticides' Daily News Blog features a post each weekday on the health and environmental hazards of pesticides, pesticide regulation and policy, pesticide alternatives and cutting-edge science, beyondpesticides.org/dailynewsblog. Want to get in on the conversation? “Like” us on Facebook, or “Follow” us on Twitter! facebook.org/beyondpesticides, twitter.com/bpncamp.

Excerpt from Beyond Pesticides Daily News Blog (3/12/2020): Washington Farmworkers Harmed by Pesticides Walk Out, Demand Justice.

Farmworkers walked out of an orchard in Sunnyside, Washington in March to demand improved working conditions. Over a dozen individuals cited unacceptable issues, such as toxic pesticide exposure, unfair wages, and lack of paid breaks.

Theresa comments: As an environmental educator and field biologist, a parent, and a citizen who cares about environmental justice, I support the farmworkers' demands for better conditions and protective gear. Some of the pesticides—which EPA should have banned by now—are extremely hazardous. Not only are the farmworkers themselves exposed, but frequently their families, who tend to live nearby, may be exposed to pesticide “drift.” Pregnant women, nursing mothers, and children are especially vulnerable to the toxic effects and do not know when this exposure may occur.

Excerpt from Beyond Pesticides Daily News Blog (5/15/2020): Glyphosate in Roundup Linked to Parkinson's Disease.

New research out of Japan's Chiba University suggests that exposure to glyphosate, the active ingredient in the most commonly used pesticide worldwide (Roundup/glyphosate), may be a risk factor in the development of Parkinson's Disease. The ubiquity of glyphosate use in agriculture—which leaves residues of the toxic chemical in food—may mean that exposures to it represent a significant risk factor for the disease.

Jerilyn comments: My husband was an avid gardener and also used Roundup for many years. He passed away due to Parkinson's, but now I think that his use of Roundup was actually the cause of his death.

Rebecca comments: My husband has Parkinson's and he has used Roundup every summer for 30 years.